

AMENDMENTS TO THE CLAIMS

COPY

Claim 1. (Original) A method to enhance bone formation or to treat pathological dental conditions or to treat degenerative joint conditions in a vertebrate animal, which method comprises administering to a vertebrate subject in need of such treatment an effective amount of a compound that inhibits the activity of NF- κ B or that inhibits proteasomal activity or that inhibits production of proteasome proteins wherein the compound does not inhibit the isoprenoid pathway.

Claim 2. (Original) The method of claim 1, wherein the compound inhibits proteasomal activity or inhibits production of proteasomal proteins.

Claim 3. (Original) The method of claim 2, wherein the compound inhibits the chymotrypsin-like activity of the proteasome.

Claim 4. (Original) The method of claim 3, wherein the compound is a peptide having at least 3 amino acids and a C-terminal functional group that reacts with the threonine residue of the chymotrypsin-like catalytic site of the proteasome.

Claim 5. (Original) The method of claim 4, wherein the c-terminal functional group is selected from the group consisting of an epoxide, a -B(OR)₂ group, a -S(OR)₂ group and a -SOOR group, wherein R is H, an alkyl (C₁₋₆) or an aryl (C₁₋₆).

Claim 6. (Original) The method of claim 5, wherein the functional group is an epoxide that forms a morpholino ring with the threonine residue of the chymotrypsin-like catalytic site of the proteasome.

Claim 7. (Original) The method of claim 3, wherein the peptide is a peptide α' , β' -epoxyketone.

Claim 8. (Original) The method of claim 7, wherein the peptide α' , β' -epoxyketone has at least 4 amino acids.